



# Asbestos

Air Pollution Control Program fact sheet

5/2003

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## Introduction

What is asbestos? Asbestos is a naturally occurring mineral fiber. Due to its unique properties, it was used in a number of different materials up into the 1970's and may still be found in some products currently being manufactured. It is estimated there have been over 3,000 different commercial applications of asbestos containing materials (ACM). Some of these materials include cementitious siding and wallboard (transite), asphalt and vinyl floor tile or sheeting, flooring mastics, textured paints, acoustical plaster, ceiling tiles and panels, fire-proofing materials, theater curtains, blown-in insulation, boiler insulation, HVAC duct insulation, pipe insulation, chalkboards, roofing shingles and felts, joint compounds, spackling compounds and brake pads.

Asbestos fibers are very small and can only be positively identified with a special type of microscope. There is no known safe level of asbestos exposure. There are three major health risks associated with asbestos exposure: asbestosis, mesothelioma and lung cancer. Studies have also indicated cancers of the mouth, throat, digestive tract and other organs may be caused by asbestos.

- Asbestosis is caused by an accumulation of asbestos fibers in the lungs, which leads to the development of scar tissue. Symptoms include shortness of breath, cough, decreased ability to exercise, chest pain and eventual heart failure.
- Mesothelioma is a cancer of the lining of the lung and abdominal cavity. This cancer is rare and currently untreatable. Symptoms include shortness of breath and chest pain. Mesothelioma usually does not appear until 20 to 40 years after first exposure to asbestos.
- Lung cancer accounts for most of the deaths related to asbestos exposure. Lung cancer is affected by the type of asbestos fiber that is inhaled, smoking habits and exposure to other chemicals in addition to asbestos.

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## Categories of asbestos containing materials

There are three categories of asbestos containing materials:

- Friable asbestos containing material is any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure. Examples of friable materials include sprayed or troweled materials such as acoustical ceiling spray or boiler insulation, paper pipe insulation and drop-in ceiling tile.
- Category I nonfriable asbestos containing material is asbestos containing packings, gaskets, \*resilient floor covering and asphalt roofing products containing more than 1 percent asbestos. \*(Any vapor barrier on resilient floor coverings such as sheet vinyl or tile is considered friable asbestos.)
- Category II nonfriable asbestos containing material is any nonfriable material, other than category I materials, that contain more than one percent asbestos. Examples of category II materials include transite wall or roof shingles, wall board or cement pipe.

## Requirements

This bulletin only addresses requirements that are the regulatory responsibility of the Missouri Department of Natural Resources. The Department's Air Pollution Control Program (APCP) enforces the requirements of 40 CFR Part 61, Subpart M, *the National Emission Standard for Asbestos*, (the asbestos NESHAP) and associated federal guidance and clarifications for regulating notification and work practice requirements for projects in "outstate" Missouri. Outstate Missouri includes all areas of the state not in one of the four local agency jurisdictions as noted in the table below:

<b>Jurisdiction</b>	<b>Agency</b>	<b>Telephone</b>
Kansas City proper	Kansas City Health Department, Air Quality Section	(816) 513-6314
St. Louis City proper	St. Louis Division of Air Pollution Control	(314) 613-7300
St. Louis County	St. Louis County Health Department	(314) 615-8923
Springfield proper	Springfield-Greene County Health Department	(417) 864-1662

In these four areas, APCP has delegated asbestos-related activities to the agency indicated. Delegated responsibilities include notification, inspection and compliance activities. Contact the appropriate agency for any such asbestos-related activities in one of these four jurisdictions. It is very important that you contact the appropriate agency, since local agencies may have more stringent requirements than APCP. Individual occupational certification and contractor registration responsibilities are retained by APCP. Activities that involve the disturbance, removal, transportation or disposal of asbestos containing materials are also subject to regulation by agencies such as the U.S. Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), and the Department of Transportation (DOT).

Renovation or demolition involving a single residential structure of four dwelling units or less is exempt from the asbestos NESHAP requirements, unless the structure is intentionally burned for fire training. Intentional burning of even a single structure for a fire training exercise is regulated. Additionally, asbestos waste and demolition waste generated from any renovation or demolition activity, including those activities to which the asbestos NESHAP does not apply, are regulated solid wastes and must be disposed of in accordance with the

requirements of the Missouri Solid Waste Management Law and regulations or any applicable local ordinances. NESHAP regulates demolition or renovations of two or more residential structures as part of a larger project or on the same site. Examples of these activities include demolition as part of a highway project or for a shopping center.

Regulated structures being demolished under an order of a state or local government agency because they are structurally unsound and are in danger of imminent collapse are exempt from certain provisions of NESHAP. For structures declared unsafe by a governmental entity, only those portions or areas that have been declared unsafe are exempt from the requirements to conduct an inspection and remove all regulated quantities of asbestos containing materials prior to demolition. Unsafe areas must be properly wetted during demolition to minimize potential asbestos fiber release. Debris must be inspected following demolition and any demolition waste containing regulated quantities of asbestos must be handled by a registered asbestos abatement contractor. APCP or the appropriate local air pollution control agency should be contacted prior to the demolition of any unsafe structures.

Prior to demolition or renovation activities, regulated structures or areas must be inspected for the presence of all asbestos containing materials by a state certified inspector. Demolition or renovation activities in structurally sound or safe structures that involve the disturbance of greater than or equal to 160 square feet, 260 linear feet or 35 cubic feet of friable (or nonfriable ACM that will be rendered friable during removal, disturbance or disposal) asbestos containing materials must be conducted by a state registered asbestos abatement contractor. These projects require notification to APCP or local agency at least 10 working days in advance of the start date of the project and must be performed by a contractor registered with APCP using Missouri-certified personnel. All demolition, regardless of the presence or absence of ACM, requires a 10 working day advance notification. Additionally, NESHAP requires removal of ACM prior to demolition, depending on the amounts and types of ACM present and the method of demolition.

The information needed for notification and the notification form can be found in the asbestos NESHAP. The NESHAP may be viewed at [www.epa.gov/asbestos](http://www.epa.gov/asbestos). Notifications for projects in the outstate area should be submitted to Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102. Other project notifications should be sent to the appropriate local agency.

Lists of contractors and Missouri-certified inspectors may be obtained from the Air Pollution Control Program, Asbestos Unit by calling (573) 751-4817. The notification form can also be obtained from the Asbestos Unit. Notifications for renovations or removal projects equal to or exceeding the threshold levels (160/260/35) will require a \$100 notification fee.

Removal of category I and category II nonfriable materials are not subject to APCP regulation provided they are in good condition (not significantly weathered or deteriorated) and are not made friable during removal or disposal practices. Work practices that will cause nonfriable materials to become regulated as friable asbestos containing materials include drilling, sawing, grinding, sanding, chipping or ~~burning~~. Nonfriable material left in place during demolition will be considered friable asbestos containing material (and thus regulated asbestos containing material or RACM) if it becomes significantly broken or otherwise damaged during demolition.

**\*\***(The intentional burning of structures, demolition or trade waste as a means of disposal is prohibited under state laws and regulations. Separate Fact Sheets on the use of structures for fire training purposes or open burning restrictions may be obtained from the Environmental Assistance Office at 1-800-361-4827 or from the Department's Web site at [www.dnr.mo.gov/oac/pubs.htm](http://www.dnr.mo.gov/oac/pubs.htm)).

## **Removal of unregulated quantities of friable and nonfriable asbestos**

For individuals working with less than 160 square feet or 260 linear feet or 35 cubic feet of friable asbestos containing materials or nonfriable asbestos containing materials, respiratory protection consisting of high efficiency particulate air (HEPA) filtered respirators is recommended. Disposable protective clothing is also advised. An amended water solution consisting of approximately one ounce of liquid detergent to one gallon of water should be used before and during removal to keep the material adequately wet to minimize fiber release. Amended water should not be used on roofing projects where fall hazards exist or near electrical sources. Waste materials must be promptly bagged or wrapped for disposal. All waste must be disposed of at a permitted solid waste landfill or transfer station. Arrangements should be made in advance with the local waste disposal company concerning any labeling or packaging requirements. OSHA may have requirements for projects involving nonfriable materials and removals involving less than NESHAP threshold quantities. It is recommended that individuals performing such projects contact OSHA.

OSHA in St. Louis (eastern Missouri area) - 1-800-392-7743

OSHA in Kansas City (western Missouri area) – 1-800-892-2674

Questions concerning the Department of Natural Resources' Air Pollution Control Program requirements for handling ACM may be directed to the following offices or write to

Missouri Department of Natural Resources  
Air Pollution Control Program  
P.O. Box 176, Jefferson City, MO 65102-0176  
1-800-361-4827 or (573) 751-4817 office  
(573) 751-2706 fax  
[www.dnr.mo.gov/alpd/apcp](http://www.dnr.mo.gov/alpd/apcp) - Program Home Page

Jefferson City Regional Office (573) 751-2729  
Kansas City Regional Office (816) 622-7000  
Northeast Regional Office (660) 385-2129  
St. Louis Regional Office (314) 416-2960  
Southeast Regional Office (573) 840-9750  
Southwest Regional Office (417) 891-4300  
Environmental Assistance Office 1-800-361-4827